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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/038,640	01/04/2002	Jonathan S. Stinson	792-62 RCE	9194
23869	7590	06/15/2006		
HOFFMANN & BARON, LLP 6900 JERICHO TURNPIKE SYOSSET, NY 11791			EXAMINER EREZO, DARWIN P	
			ART UNIT 3731	PAPER NUMBER

DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/038,640

Applicant(s)

STINSON, JONATHAN S.

Examiner

Darwin P. Erez

Art Unit

3731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 March 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3, 6, 7, 14, 15, 17, 25, 52, 53, 55-69 and 73-93 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 7, 14, 15, 17, 25, 52, 53, 55-69 and 73-93 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Allowable Subject Matter***

1. The indicated allowability of claims 6, 8, 54, 55, 58 and 76-93 is regretted and an action on the merits is presented below.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 recites that the second strand crossing angle is substantially the same as the first strand crossing angle, which contradicts the limitation of the independent claim 6, which states that the second strand crossing angle is larger than the first strand crossing angle. Therefore, the resulting claim does not clearly set forth the metes and bounds of the patent protection desired.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 6, 14, 17, 25, 52, 53, 55-61, 63, 69, 73, 74 and 76-93 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,575,818 to Pinchuk.

As to claims 1, 6, 14, 25, 56-59, 72, 74, 76, 78, 81, 84, 86, 87 and 93, Pinchuk discloses a stent comprising a body insertable structure including a plurality (at least one) flexible strands **408** selectively formed to provide a discrete first tubular segment **403** and a plurality of discrete second tubular segments, or locking rings **614,616**. Pinchuk further discloses that multiple locking rings can be disposed along the body of the stent, which would inherently provide a plurality of discrete first tubular segments (col. 10, lines 20-22). The first and second tubular segments are arranged in alternating sequence; wherein the first tubular segments and the second tubular segments have respective first and second nominal diameters when the tubular is in a relaxed state and wherein the tubular is radially compressible against an elastic restoring force to a predetermined diameter due to the stent being a self expandable stent. As shown in Fig. 4, the flexible strand **408** of the first tubular segment has a strand crossing angle that is less than the strand crossing angle of the second tubular segment. This arrangement inherently provides a greater axial stiffness level for the first tubular segment when compared to the second tubular segment. However, the second tubular segment has a greater radial force level when compared to the first tubular segment.

As to claims 2, 3, 52, 53, 55, 77, 79, 80, 85, 88 and 89, the strand crossing angles for each of the first and second tubular segments are constant (substantially the same), therefore, the axial stiffness levels for each of the tubular segments are substantially the same (the same reason applies for the radial force levels).

As to claims 17, 72 and 92, the nominal diameter of both the first and second tubular segment can be substantially the same, as seen in the embodiment shown in Fig. 4

As to claims 60, 61, 82, 83, 90 and 91, the nominal diameters of each of first and second tubular wall segments are substantially the same, while the nominal diameter of the second tubular wall segment is larger than the first (Fig. 6).

As to claim 63, the number of filaments along the second tubular wall segment is less than the first tubular wall segment.

As to claim 69, see strands/filaments 408, which is viewed as a cable.

As to claim 73, see Fig. 6, the ends being two second segments.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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8. Claims 15 and 75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pinchuk.

Pinchuk discloses that the stent is fully capable of having alternating locking rings throughout the body of the stent, which would inherently have the first and second tubular segments be alternating. Pinchuk is silent with regards to each alternating segments having a length of 1 cm. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to arrive at a segment length of 1 cm, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

9. Claims 62, 64, 65 and 68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pinchuk in view of US 5,064,435 to Porter.

Pinchuk teaches all the limitations of the claims, including a metallic filament, but is silent with regards to the strand crossing angles of the first and second tubular segments being substantially the same, or wherein the first tubular segment comprises more than one type of filament (along with a second filament that does not span the length of the stent). However, Porter teaches a stent that is similar to Pinchuk's device in that the stent is configured in sections and allows for each segment to have different characteristics than its surrounding segments (Fig. 6, and as discussed in the previous office action); and wherein the strand crossing angles for each segment is substantially the same. The difference between Pinchuk's device and Porter's device is that Pinchuk uses different strand crossing angles to control the axial and radial stiffness levels while

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Porter uses reinforcing filaments to control the axial and radial stiffness levels. In essence, they both use different means to accomplish the same function. Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Pinchuk to that of Porter since both devices perform the same function of providing alternating segments with differing axial and radial stiffness.

10. Claims 66 and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pinchuk in view of Porter, and in further view of US 6,045,568 to Igaki et al.

The above combination of Pinchuk/Porter discloses a stent formed of a metallic filament but is silent with regards to the stent formed of a bioabsorbable material. Igaki teaches forming a stent out of a bioabsorbable material so that the stent will absorb into the body in several months, a prospect which is "favorable for the living body" (col. 5, lines 65-67). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to form the stent of Pinchuk/Porter out of bioabsorbable material so that it will dissolve within a few months of implantation, maintaining patency in a previously occluded blood vessel, a result which is favorable to the recovery of the patient, as taught by Igaki et al.

### ***Response to Arguments***

11. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Darwin P. Erez who's telephone number is (571) 272-4695. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anhtuan T. Nguyen can be reached on (571) 272-4963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

de

  
**ANH TUAN T. NGUYEN**  
**SUPERVISORY PATENT EXAMINER**

6/10/06.